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NEB-241-PUS.ST25.txt
SEQUENCE LISTING

<110> New England Biolabs, Inc.
Morgan, Richard
Wilson, Geoffrey
Lunnen, Keith
Heiter, Daniel
Benner, Jack
Nfenfou, Celine
Picone, Stephen

<120> A Novel Modular Type II Restriction Endonuclease, CspCI, and the Use of Modular Endonucleases for Generating Endonucleases with New Specificities

<130> NEB-241-PUS

<150> 60/555,796
<151> 2004-03-24

<150> PCT/US05/09824
<151> 2005-03-23

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<170> PatentIn version 3.2

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35 40 45

Asn Ala Lys Gly Asn Ile Gly Tyr Pro Glu Phe Ile Ile Ser Asn Arg
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Lys Asp Thr Ala Phe Leu Ile Val Val Glu Cys Lys Pro Asp Val Lys
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Lys His Glu Ser Pro Ser Arg Asp Lys Pro Val Asp Tyr Ala Val Asp
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Gly Val Leu His Tyr Ala Arg His Leu Ala Lys His Tyr Thr Val Leu
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Ala Val Ala Val Ser Gly Thr Thr Ala Ser Ser Met Lys Val Ser Asn
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Phe Leu Val Pro Ala Gly Thr Thr Asp Val Lys Ala Leu Val Asn Glu
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Ser Asn Ser Ser Val Ala Glu Leu Val Pro Tyr Asp Asp Tyr Tyr Arg
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Leu Ala Ser Tyr Asp Pro Asp Val Ala Gln Lys Arg His Ser Asp Leu
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Ile Ser Glu Glu Glu Lys Pro Leu Leu Val Ser Gly Thr Leu Ile Ala
195 200 205

Leu Met Asn Asn Thr Phe Ile Lys Thr Phe Asp Ala Leu Pro Ala Glu
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Asp Val Gln Glu Ala Trp Leu Thr Ala Ile Lys Lys Glu Leu Asp Lys
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Thr Ile Ala Val Asn Pro Asn Leu Gly Lys Pro Asp Ser Lys Thr Ala
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Leu Ile Ala Asn Val Asn Pro Lys Ser Lys Val Leu Asp Ile Cys Ala
340 345 350

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370 375 380

Gly Ile Glu Asn Asn Pro Lys Met Phe Ala Leu Ala Ala Ser Asn Met
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Ile Leu Arg Gly Asp Gly Lys Ala Asn Leu His Gln Ala Ser Cys Phe
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Asp Asn Ala Val Ile Ala Ala Val Gln Lys Met Lys Pro Asn Val Gly
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Val Gly Ile Ala Ile Val Pro Met Ser Ser Ala Ile Ser Pro Asn Pro
465 470 475 480

Met Arg Glu Glu Leu Met Lys Tyr His Ser Leu Asp Ala Val Met Ser
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Met Pro Gln Glu Leu Phe Tyr Pro Val Gly Thr Val Thr Cys Val Met
500 505 510

Val Trp Ile Ala Gly Val Pro His Glu Gln Met Ser Lys Lys Thr Trp
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Phe Gly Tyr Trp Arg Asp Asp Gly Phe Val Lys Thr Lys His Lys Gly
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Arg Ile Asp Met Asn Gly Thr Trp Pro Asp Ile Arg Asp Arg Trp Ile
545 550 555 560

Glu Met Tyr Arg Asn Arg Glu Val His Ala Gly Glu Ser Ile Met Gln
565 570 575

Lys Val Gly Pro Asp Asp Glu Trp Cys Ala Glu Ala Tyr Met Glu Thr
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Asp Tyr Ser Val Leu Thr Gln Ser Asp Phe Glu Lys Val Val Gln Ser
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35 40 45

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245

250

255

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43

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<400> 19

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44

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42

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<211> 43

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43

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<220>

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18

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<220>
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<400> 24

Val Leu Asp Ile Cys Ala Gly Thr Gly Gly Phe
1 5 10

<210> 25
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<220>
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<400> 25

Ala Asn Glu Arg Lys Thr Glu Glu Leu Val
1 5 10

<210> 26
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<212> PRT
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<220>
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<400> 26

Met Ala Asn Glu Arg Lys Thr Glu Ser Leu Val
1 5 10

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<210> 27
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<400> 27

Pro Lys Ile Asn Asp Leu Phe His Leu Glu
1 5 10

<210> 28
<211> 11
<212> PRT
<213> unknown

<220>
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<400> 28

Met Pro Lys Ile Asn Asp Leu Phe His Leu Glu
1 5 10

<210> 29
<211> 12
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<223> n is a, c, g, or t

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ccacnnnnnt tg

12

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NEB-241-PUS.ST25.txt

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<220>

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<220>

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<223> n=a,c,t or g

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36

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<221> misc_feature
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<220>

<221> misc_feature
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34

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NEB-241-PUS.ST25.txt

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	caannnnnnng tgg	13
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NEB-241-PUS.ST25.txt

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caannnnngtg g

11

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<212> DNA
<213> unknown

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caannnnnntt g

11

<210> 37
<211> 13
<212> DNA
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<220>
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ccacnnnnng tgg

13

<210> 38
<211> 12
<212> DNA
<213> unknown

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<222> (5)..(8)

NEB-241-PUS.ST25.txt

<223> n=a,c,t or g

<220>

<221> misc_feature
<222> (12)..(12)
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<400> 38

caannnnngt gr

12

<210> 39

<211> 11

<212> DNA

<213> unknown

<220>

<223> synthetic

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<221> misc_feature
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<400> 39

caannnnngt g

11

<210> 40

<211> 11

<212> DNA

<213> unknown

<220>

<223> synthetic

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11

<210> 41

<211> 11

<212> DNA

<213> unknown

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caannnnntg c

11

NEB-241-PUS.ST25.txt

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<223> n=a,c,t or g

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gcannnnngt gg

12

<210> 43
<211> 12
<212> DNA
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<222> (4)..(9)
<223> n=a,c,t or g

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cgannnnnnt gc

12

<210> 44
<211> 11
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11

<210> 45
<211> 11
<212> DNA
<213> *Bacillus pumilus*

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NEB-241-PUS.ST25.txt

<222> (4)..(8)
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gagnnnnnct c

11

<210> 46
<211> 11
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<222> (4)..(9)
<223> n=a, c, t or g

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ccannnnnng t

11

<210> 47
<211> 13
<212> DNA
<213> *Acinetobacter lwoffii*

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13

<210> 48
<211> 11
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<222> (9)..(9)
<223> r=a or g

<400> 48
gaynnnnnrt c

11

<210> 49

NEB-241-PUS.ST25.txt

<211> 11
<212> DNA
<213> *Bacillus stearothermophilus*

<220>
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<223> n=a,c, t or g

<400> 49
acnnnnnctc c

11